

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Westfield

Westfield Executive Park

53 Southampton Road

Westfield, MA 01085

Tel: (413)572-4000

TestAmerica Job ID: 360-40979-1

Client Project/Site: Olin Chemical

For:

Olin Corporation

PO BOX 248

Charleston, Tennessee 37310-0248

Attn: Mr. James Cashwell

Authorized for release by:

6/21/2012 11:11:42 AM

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CHECKED FOR COMPLETENESS  
OF PARAMETERS ORDERED BY:

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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## Case Narrative

Client: Olin Corporation  
Project/Site: Olin Chemical

TestAmerica Job ID: 360-40979-1

### Job ID: 360-40979-1

#### Laboratory: TestAmerica Westfield

##### Narrative

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

##### Receipt

The samples were received on 6/7/2012 4:40 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 3.7° C and 4.6° C.

##### Metals

Method 6010C: The matrix spike (40979-6 MS) recovery for Sodium (68%) in batch 91904 was outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria.

At the request of the client, an abbreviated/modified MCP analyte list was reported for this job.

No other analytical or quality issues were noted.

##### General Chemistry

Method 300.0: The following samples were diluted due to the presence of elevated chloride concentration which co-elutes with the nitrite peak: OC-SW-ISC01 (360-40979-1), OC-SW-ISCO2 (360-40979-2), OC-SW-ISCO3 (360-40979-3), OC-SW-PZ-16RRSW (360-40979-4), OC-SW-PZ-17RRSW (360-40979-5), OC-SW-PZ-18RRSW (360-40979-6), OC-SW-PZ-18RSW DUP (360-40979-8), OC-SW-SD-17 (360-40979-7). Elevated reporting limits (RLs) are provided.

Method L107-06-1B: The matrix spike duplicate (MSD) recovery for batch 91925 was outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria.

No other analytical or quality issues were noted.

# MassDEP Analytical Protocol Certification Form

Laboratory Name:	TestAmerica Westfield		Project #:	360-40979-1	
Project Location:	Wilmington		RTN:		
<b>This form provides certifications for the following data set: list Laboratory Sample ID Number(s):</b>					
<b>360-40979-(1-8)</b>					
Matrices:	<input checked="" type="checkbox"/> Groundwater/Surface Water		<input type="checkbox"/> Soil/Sediment	<input type="checkbox"/> Drinking Water	<input type="checkbox"/> Air
			<input type="checkbox"/> Other:		
<b>CAM Protocols (check all that apply below):</b>					
8260 VOC CAM II A	7470/7471 Hg CAM III B	Mass DEP VPH CAM IV A	8081 Pesticides CAM V B	7196 Hex Cr CAM VI B	Mass DEP APH CAM IX A
8270 SVOC CAM II B	7010 Metals CAM III C	Mass DEP EPH CAM IV B	8151 Herbicides CAM V C	8330 Explosives CAM VIII A	TO-15 VOC CAM IX B
6010 Metals CAM III A	6020 Metals CAM III D	8082 PCB CAM V A	9014 Total Cyanide/PAC CAM VI A	6860 Perchlorate CAM VIII B	
<b>Affirmative Responses to Questions A through F are required for "Presumptive Certainty" status</b>					
<b>A</b>	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding time.			<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
<b>B</b>	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?			<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
<b>C</b>	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?			<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
<b>D</b>	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?			<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
<b>E</b>	a. VPH, EPH and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications). b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?			<input type="checkbox"/> Yes	<input type="checkbox"/> No
<b>F</b>	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?			<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
<b>Responses to Questions G, H and I below are required for "Presumptive Certainty" status</b>					
<b>G</b>	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?			<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No <sup>1</sup>
<b>Data User Note:</b> Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WCS-07-350					
<b>H</b>	Were all QC performance standards specified in the CAM protocol(s) achieved?			<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No <sup>1</sup>
<b>I</b>	Were results reported for the complete analyte list specified in the selected CAM protocol(s) ?			<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No <sup>1</sup>
<sup>1</sup> All negative responses must be addressed in an attached laboratory narrative.					
<i>I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, is accurate and complete.</i>					
Signature:			Position:	Technical Manager	
Printed Name:	James Wickham		Date:	6/21/12 10:38	
This form has been electronically signed and approved					

# Detection Summary

Client: Olin Corporation  
Project/Site: Olin Chemical

TestAmerica Job ID: 360-40979-1

**Client Sample ID: OC-SW-ISC01**

**Lab Sample ID: 360-40979-1**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	88	J	100	13	ug/L	1		6010C	Total/NA
Chromium	9.6		5.0	0.53	ug/L	1		6010C	Total/NA
Sodium	58000		2000	700	ug/L	1		6010C	Total/NA
Aluminum	97	J	100	13	ug/L	1		6010C	Dissolved
Chromium	12		5.0	0.53	ug/L	1		6010C	Dissolved
Sodium	72000		2000	700	ug/L	1		6010C	Dissolved
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Nitrate as N	0.27		0.050	0.050	mg/L	1		300.0	Total/NA
Sulfate	98		2.0	2.0	mg/L	1		300.0	Total/NA
Chloride	100		10	10	mg/L	10		300.0	Total/NA
Ammonia	23		0.50	0.50	mg/L	5		L107-06-1B	Total/NA
Specific Conductance	640		1.0	1.0	umhos/cm	1		SM 2510B	Total/NA

**Client Sample ID: OC-SW-ISCO2**

**Lab Sample ID: 360-40979-2**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	800		100	13	ug/L	1		6010C	Total/NA
Chromium	170		5.0	0.53	ug/L	1		6010C	Total/NA
Sodium	84000		2000	700	ug/L	1		6010C	Total/NA
Aluminum	130		100	13	ug/L	1		6010C	Dissolved
Chromium	42		5.0	0.53	ug/L	1		6010C	Dissolved
Sodium	95000		2000	700	ug/L	1		6010C	Dissolved
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Nitrate as N	0.55		0.050	0.050	mg/L	1		300.0	Total/NA
Sulfate	250		20	20	mg/L	10		300.0	Total/NA
Chloride	100		10	10	mg/L	10		300.0	Total/NA
Ammonia	46		0.50	0.50	mg/L	5		L107-06-1B	Total/NA
Specific Conductance	1000		1.0	1.0	umhos/cm	1		SM 2510B	Total/NA

**Client Sample ID: OC-SW-ISCO3**

**Lab Sample ID: 360-40979-3**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	28	J	100	13	ug/L	1		6010C	Total/NA
Sodium	71000		2000	700	ug/L	1		6010C	Total/NA
Aluminum	21	J	100	13	ug/L	1		6010C	Dissolved
Sodium	82000		2000	700	ug/L	1		6010C	Dissolved
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Nitrate as N	0.71		0.050	0.050	mg/L	1		300.0	Total/NA
Sulfate	34		2.0	2.0	mg/L	1		300.0	Total/NA
Chloride	160		10	10	mg/L	10		300.0	Total/NA
Ammonia	1.8		0.10	0.10	mg/L	1		L107-06-1B	Total/NA
Specific Conductance	680		1.0	1.0	umhos/cm	1		SM 2510B	Total/NA

**Client Sample ID: OC-SW-PZ-16RRSW**

**Lab Sample ID: 360-40979-4**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	310		100	13	ug/L	1		6010C	Total/NA
Chromium	140		5.0	0.53	ug/L	1		6010C	Total/NA
Sodium	88000		2000	700	ug/L	1		6010C	Total/NA
Aluminum	360		100	13	ug/L	1		6010C	Dissolved
Chromium	170		5.0	0.53	ug/L	1		6010C	Dissolved
Sodium	100000		2000	700	ug/L	1		6010C	Dissolved

# Detection Summary

Client: Olin Corporation  
Project/Site: Olin Chemical

TestAmerica Job ID: 360-40979-1

## Client Sample ID: OC-SW-PZ-16RRSW (Continued)

## Lab Sample ID: 360-40979-4

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Nitrate as N	0.44		0.050	0.050	mg/L	1		300.0	Total/NA
Sulfate	270		20	20	mg/L	10		300.0	Total/NA
Chloride	120		10	10	mg/L	10		300.0	Total/NA
Ammonia	48		1.0	1.0	mg/L	10		L107-06-1B	Total/NA
Specific Conductance	1100		1.0	1.0	umhos/cm	1		SM 2510B	Total/NA

## Client Sample ID: OC-SW-PZ-17RRSW

## Lab Sample ID: 360-40979-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	540		100	13	ug/L	1		6010C	Total/NA
Chromium	260		5.0	0.53	ug/L	1		6010C	Total/NA
Sodium	110000		2000	700	ug/L	1		6010C	Total/NA
Aluminum	570		100	13	ug/L	1		6010C	Dissolved
Chromium	290		5.0	0.53	ug/L	1		6010C	Dissolved
Sodium	110000		2000	700	ug/L	1		6010C	Dissolved
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Nitrate as N	0.35		0.050	0.050	mg/L	1		300.0	Total/NA
Sulfate	280		20	20	mg/L	10		300.0	Total/NA
Chloride	130		10	10	mg/L	10		300.0	Total/NA
Ammonia	49		1.0	1.0	mg/L	10		L107-06-1B	Total/NA
Specific Conductance	1100		1.0	1.0	umhos/cm	1		SM 2510B	Total/NA

## Client Sample ID: OC-SW-PZ-18RSW

## Lab Sample ID: 360-40979-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	170		100	13	ug/L	1		6010C	Total/NA
Chromium	18		5.0	0.53	ug/L	1		6010C	Total/NA
Sodium	65000		2000	700	ug/L	1		6010C	Total/NA
Aluminum	160		100	13	ug/L	1		6010C	Dissolved
Chromium	17		5.0	0.53	ug/L	1		6010C	Dissolved
Sodium	71000		2000	700	ug/L	1		6010C	Dissolved
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Nitrate as N	0.27		0.050	0.050	mg/L	1		300.0	Total/NA
Sulfate	97		2.0	2.0	mg/L	1		300.0	Total/NA
Chloride	110		10	10	mg/L	10		300.0	Total/NA
Ammonia	28		0.50	0.50	mg/L	5		L107-06-1B	Total/NA
Specific Conductance	640		1.0	1.0	umhos/cm	1		SM 2510B	Total/NA

## Client Sample ID: OC-SW-SD-17

## Lab Sample ID: 360-40979-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	2900		100	13	ug/L	1		6010C	Total/NA
Chromium	680		5.0	0.53	ug/L	1		6010C	Total/NA
Sodium	110000		2000	700	ug/L	1		6010C	Total/NA
Aluminum	3100		100	13	ug/L	1		6010C	Dissolved
Chromium	730		5.0	0.53	ug/L	1		6010C	Dissolved
Sodium	110000		2000	700	ug/L	1		6010C	Dissolved
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Nitrate as N	0.44		0.050	0.050	mg/L	1		300.0	Total/NA
Sulfate	280		20	20	mg/L	10		300.0	Total/NA
Chloride	130		10	10	mg/L	10		300.0	Total/NA
Ammonia	60		1.0	1.0	mg/L	10		L107-06-1B	Total/NA
Specific Conductance	1100		1.0	1.0	umhos/cm	1		SM 2510B	Total/NA

## Detection Summary

Client: Olin Corporation  
Project/Site: Olin Chemical

TestAmerica Job ID: 360-40979-1

**Client Sample ID: OC-SW-PZ-18RSW DUP**

**Lab Sample ID: 360-40979-8**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	140		100	13	ug/L	1		6010C	Total/NA
Chromium	15		5.0	0.53	ug/L	1		6010C	Total/NA
Sodium	64000		2000	700	ug/L	1		6010C	Total/NA
Aluminum	150		100	13	ug/L	1		6010C	Dissolved
Chromium	16		5.0	0.53	ug/L	1		6010C	Dissolved
Sodium	71000		2000	700	ug/L	1		6010C	Dissolved
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Nitrate as N	0.27		0.050	0.050	mg/L	1		300.0	Total/NA
Sulfate	98		2.0	2.0	mg/L	1		300.0	Total/NA
Chloride	110		10	10	mg/L	10		300.0	Total/NA
Ammonia	23		1.0	1.0	mg/L	10		L107-06-1B	Total/NA
Specific Conductance	640		1.0	1.0	umhos/cm	1		SM 2510B	Total/NA

## Method Summary

Client: Olin Corporation  
Project/Site: Olin Chemical

TestAmerica Job ID: 360-40979-1

Method	Method Description	Protocol	Laboratory
6010C	Metals (ICP)	SW846	TAL WFD
300.0	Nitrate & Nitrite	40CFR136A	TAL WFD
300.0	Chloride & Sulfate	40CFR136A	TAL WFD
L107-06-1B	Nitrogen Ammonia	LACHAT	TAL WFD
SM 2510B	Conductivity, Specific Conductance	SM	TAL WFD

### Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

LACHAT = LACHAT

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

### Laboratory References:

TAL WFD = TestAmerica Westfield, Westfield Executive Park, 53 Southampton Road, Westfield, MA 01085, TEL (413)572-4000

## Sample Summary

Client: Olin Corporation  
Project/Site: Olin Chemical

TestAmerica Job ID: 360-40979-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
360-40979-1	OC-SW-ISCO1	Water	06/07/12 10:30	06/07/12 16:40
360-40979-2	OC-SW-ISCO2	Water	06/07/12 08:45	06/07/12 16:40
360-40979-3	OC-SW-ISCO3	Water	06/07/12 08:30	06/07/12 16:40
360-40979-4	OC-SW-PZ-16RRSW	Water	06/07/12 09:05	06/07/12 16:40
360-40979-5	OC-SW-PZ-17RRSW	Water	06/07/12 09:20	06/07/12 16:40
360-40979-6	OC-SW-PZ-18RSW	Water	06/07/12 09:55	06/07/12 16:40
360-40979-7	OC-SW-SD-17	Water	06/07/12 09:35	06/07/12 16:40
360-40979-8	OC-SW-PZ-18RSW DUP	Water	06/07/12 09:55	06/07/12 16:40

# Client Sample Results

Client: Olin Corporation  
Project/Site: Olin Chemical

TestAmerica Job ID: 360-40979-1

**Client Sample ID: OC-SW-ISC01**

**Lab Sample ID: 360-40979-1**

**Matrix: Water**

Date Collected: 06/07/12 10:30

Date Received: 06/07/12 16:40

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	88	J	100	13	ug/L		06/08/12 09:10	06/13/12 15:53	1
Chromium	9.6		5.0	0.53	ug/L		06/08/12 09:10	06/13/12 15:53	1
Sodium	58000		2000	700	ug/L		06/08/12 09:10	06/13/12 15:53	1

**Method: 6010C - Metals (ICP) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	97	J	100	13	ug/L		06/18/12 15:19	06/18/12 15:19	1
Chromium	12		5.0	0.53	ug/L		06/18/12 15:19	06/18/12 15:19	1
Sodium	72000		2000	700	ug/L		06/18/12 15:19	06/18/12 15:19	1

**General Chemistry**

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.27		0.050	0.050	mg/L		06/08/12 13:52	06/08/12 13:52	1
Sulfate	98		2.0	2.0	mg/L		06/08/12 13:52	06/08/12 13:52	1
Chloride	100		10	10	mg/L		06/08/12 14:09	06/08/12 14:09	10
Nitrite as N	ND		0.10	0.10	mg/L		06/08/12 14:09	06/08/12 14:09	10
Ammonia	23		0.50	0.50	mg/L		06/11/12 10:06	06/11/12 12:58	5
Specific Conductance	640		1.0	1.0	umhos/cm		06/11/12 10:23	06/11/12 10:23	1

# Client Sample Results

Client: Olin Corporation  
Project/Site: Olin Chemical

TestAmerica Job ID: 360-40979-1

**Client Sample ID: OC-SW-ISCO2**

**Lab Sample ID: 360-40979-2**

**Matrix: Water**

Date Collected: 06/07/12 08:45

Date Received: 06/07/12 16:40

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	800		100	13	ug/L		06/08/12 09:10	06/13/12 16:02	1
Chromium	170		5.0	0.53	ug/L		06/08/12 09:10	06/13/12 16:02	1
Sodium	84000		2000	700	ug/L		06/08/12 09:10	06/13/12 16:02	1

**Method: 6010C - Metals (ICP) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	130		100	13	ug/L			06/18/12 15:22	1
Chromium	42		5.0	0.53	ug/L			06/18/12 15:22	1
Sodium	95000		2000	700	ug/L			06/18/12 15:22	1

**General Chemistry**

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.55		0.050	0.050	mg/L			06/08/12 14:26	1
Sulfate	250		20	20	mg/L			06/08/12 14:43	10
Chloride	100		10	10	mg/L			06/08/12 14:43	10
Nitrite as N	ND		0.10	0.10	mg/L			06/08/12 14:43	10
Ammonia	46		0.50	0.50	mg/L		06/11/12 10:06	06/11/12 12:59	5
Specific Conductance	1000		1.0	1.0	umhos/cm			06/11/12 10:25	1

# Client Sample Results

Client: Olin Corporation  
Project/Site: Olin Chemical

TestAmerica Job ID: 360-40979-1

**Client Sample ID: OC-SW-ISCO3**

**Lab Sample ID: 360-40979-3**

**Matrix: Water**

Date Collected: 06/07/12 08:30

Date Received: 06/07/12 16:40

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	28	J	100	13	ug/L		06/15/12 10:16	06/15/12 19:36	1
Chromium	ND		5.0	0.53	ug/L		06/15/12 10:16	06/15/12 19:36	1
Sodium	71000		2000	700	ug/L		06/15/12 10:16	06/15/12 19:36	1

**Method: 6010C - Metals (ICP) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	21	J	100	13	ug/L		06/18/12 15:31	06/18/12 15:31	1
Chromium	ND		5.0	0.53	ug/L		06/18/12 15:31	06/18/12 15:31	1
Sodium	82000		2000	700	ug/L		06/18/12 15:31	06/18/12 15:31	1

**General Chemistry**

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.71		0.050	0.050	mg/L		06/08/12 15:00	06/08/12 15:00	1
Sulfate	34		2.0	2.0	mg/L		06/08/12 15:00	06/08/12 15:00	1
Chloride	160		10	10	mg/L		06/08/12 15:17	06/08/12 15:17	10
Nitrite as N	ND		0.10	0.10	mg/L		06/08/12 15:17	06/08/12 15:17	10
Ammonia	1.8		0.10	0.10	mg/L	06/13/12 13:49	06/14/12 13:16	06/14/12 13:16	1
Specific Conductance	680		1.0	1.0	umhos/cm		06/11/12 10:26	06/11/12 10:26	1

# Client Sample Results

Client: Olin Corporation  
Project/Site: Olin Chemical

TestAmerica Job ID: 360-40979-1

**Client Sample ID: OC-SW-PZ-16RRSW**

**Lab Sample ID: 360-40979-4**

**Matrix: Water**

Date Collected: 06/07/12 09:05

Date Received: 06/07/12 16:40

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	310		100	13	ug/L		06/15/12 10:16	06/15/12 19:39	1
Chromium	140		5.0	0.53	ug/L		06/15/12 10:16	06/15/12 19:39	1
Sodium	88000		2000	700	ug/L		06/15/12 10:16	06/15/12 19:39	1

**Method: 6010C - Metals (ICP) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	360		100	13	ug/L		06/18/12 15:33	06/18/12 15:33	1
Chromium	170		5.0	0.53	ug/L		06/18/12 15:33	06/18/12 15:33	1
Sodium	100000		2000	700	ug/L		06/18/12 15:33	06/18/12 15:33	1

**General Chemistry**

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.44		0.050	0.050	mg/L		06/08/12 16:09	06/08/12 16:09	1
Sulfate	270		20	20	mg/L		06/08/12 16:26	06/08/12 16:26	10
Chloride	120		10	10	mg/L		06/08/12 16:26	06/08/12 16:26	10
Nitrite as N	ND		0.10	0.10	mg/L		06/08/12 16:26	06/08/12 16:26	10
Ammonia	48		1.0	1.0	mg/L		06/13/12 13:49	06/14/12 13:34	10
Specific Conductance	1100		1.0	1.0	umhos/cm			06/11/12 10:28	1

# Client Sample Results

Client: Olin Corporation  
Project/Site: Olin Chemical

TestAmerica Job ID: 360-40979-1

**Client Sample ID: OC-SW-PZ-17RRSW**

**Lab Sample ID: 360-40979-5**

**Matrix: Water**

Date Collected: 06/07/12 09:20

Date Received: 06/07/12 16:40

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	540		100	13	ug/L		06/15/12 10:16	06/15/12 19:42	1
Chromium	260		5.0	0.53	ug/L		06/15/12 10:16	06/15/12 19:42	1
Sodium	110000		2000	700	ug/L		06/15/12 10:16	06/15/12 19:42	1

**Method: 6010C - Metals (ICP) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	570		100	13	ug/L		06/18/12 15:36	06/18/12 15:36	1
Chromium	290		5.0	0.53	ug/L		06/18/12 15:36	06/18/12 15:36	1
Sodium	110000		2000	700	ug/L		06/18/12 15:36	06/18/12 15:36	1

**General Chemistry**

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.35		0.050	0.050	mg/L		06/08/12 16:43	06/08/12 16:43	1
Sulfate	280		20	20	mg/L		06/08/12 17:00	06/08/12 17:00	10
Chloride	130		10	10	mg/L		06/08/12 17:00	06/08/12 17:00	10
Nitrite as N	ND		0.10	0.10	mg/L		06/08/12 17:00	06/08/12 17:00	10
Ammonia	49		1.0	1.0	mg/L		06/13/12 13:49	06/14/12 13:35	10
Specific Conductance	1100		1.0	1.0	umhos/cm			06/11/12 10:29	1

# Client Sample Results

Client: Olin Corporation  
Project/Site: Olin Chemical

TestAmerica Job ID: 360-40979-1

**Client Sample ID: OC-SW-PZ-18RSW**

**Lab Sample ID: 360-40979-6**

**Matrix: Water**

Date Collected: 06/07/12 09:55

Date Received: 06/07/12 16:40

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	170		100	13	ug/L		06/08/12 09:10	06/13/12 14:40	1
Chromium	18		5.0	0.53	ug/L		06/08/12 09:10	06/13/12 14:40	1
Sodium	65000		2000	700	ug/L		06/08/12 09:10	06/13/12 14:40	1

**Method: 6010C - Metals (ICP) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	160		100	13	ug/L		06/18/12 15:07		1
Chromium	17		5.0	0.53	ug/L		06/18/12 15:07		1
Sodium	71000		2000	700	ug/L		06/18/12 15:07		1

**General Chemistry**

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.27		0.050	0.050	mg/L		06/08/12 12:43		1
Sulfate	97		2.0	2.0	mg/L		06/08/12 12:43		1
Chloride	110		10	10	mg/L		06/08/12 13:01		10
Nitrite as N	ND		0.10	0.10	mg/L		06/08/12 13:01		10
Ammonia	28		0.50	0.50	mg/L	06/13/12 13:49	06/14/12 13:32		5
Specific Conductance	640		1.0	1.0	umhos/cm		06/11/12 10:31		1

# Client Sample Results

Client: Olin Corporation  
Project/Site: Olin Chemical

TestAmerica Job ID: 360-40979-1

**Client Sample ID: OC-SW-SD-17**

**Lab Sample ID: 360-40979-7**

**Matrix: Water**

Date Collected: 06/07/12 09:35

Date Received: 06/07/12 16:40

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	2900		100	13	ug/L		06/15/12 10:16	06/15/12 19:45	1
Chromium	680		5.0	0.53	ug/L		06/15/12 10:16	06/15/12 19:45	1
Sodium	110000		2000	700	ug/L		06/15/12 10:16	06/15/12 19:45	1

**Method: 6010C - Metals (ICP) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	3100		100	13	ug/L		06/18/12 15:39	06/18/12 15:39	1
Chromium	730		5.0	0.53	ug/L		06/18/12 15:39	06/18/12 15:39	1
Sodium	110000		2000	700	ug/L		06/18/12 15:39	06/18/12 15:39	1

**General Chemistry**

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.44		0.050	0.050	mg/L		06/08/12 17:17	06/08/12 17:17	1
Sulfate	280		20	20	mg/L		06/08/12 17:34	06/08/12 17:34	10
Chloride	130		10	10	mg/L		06/08/12 17:34	06/08/12 17:34	10
Nitrite as N	ND		0.10	0.10	mg/L		06/08/12 17:34	06/08/12 17:34	10
Ammonia	60		1.0	1.0	mg/L		06/13/12 13:49	06/14/12 13:36	10
Specific Conductance	1100		1.0	1.0	umhos/cm		06/11/12 10:34	06/11/12 10:34	1

# Client Sample Results

Client: Olin Corporation  
Project/Site: Olin Chemical

TestAmerica Job ID: 360-40979-1

**Client Sample ID: OC-SW-PZ-18RSW DUP**

**Lab Sample ID: 360-40979-8**

**Matrix: Water**

Date Collected: 06/07/12 09:55

Date Received: 06/07/12 16:40

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	140		100	13	ug/L		06/15/12 10:16	06/15/12 19:48	1
Chromium	15		5.0	0.53	ug/L		06/15/12 10:16	06/15/12 19:48	1
Sodium	64000		2000	700	ug/L		06/15/12 10:16	06/15/12 19:48	1

**Method: 6010C - Metals (ICP) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	150		100	13	ug/L		06/18/12 15:42	06/18/12 15:42	1
Chromium	16		5.0	0.53	ug/L		06/18/12 15:42	06/18/12 15:42	1
Sodium	71000		2000	700	ug/L		06/18/12 15:42	06/18/12 15:42	1

**General Chemistry**

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.27		0.050	0.050	mg/L		06/08/12 17:51	06/08/12 17:51	1
Sulfate	98		2.0	2.0	mg/L		06/08/12 17:51	06/08/12 17:51	1
Chloride	110		10	10	mg/L		06/08/12 18:08	06/08/12 18:08	10
Nitrite as N	ND		0.10	0.10	mg/L		06/08/12 18:08	06/08/12 18:08	10
Ammonia	23		1.0	1.0	mg/L		06/13/12 13:49	06/14/12 13:37	10
Specific Conductance	640		1.0	1.0	umhos/cm		06/11/12 10:35	06/11/12 10:35	1

## Definitions/Glossary

Client: Olin Corporation  
Project/Site: Olin Chemical

TestAmerica Job ID: 360-40979-1

### Qualifiers

#### Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F	MS or MSD exceeds the control limits

#### General Chemistry

Qualifier	Qualifier Description
F	MS or MSD exceeds the control limits

### Glossary

#### Abbreviation

**These commonly used abbreviations may or may not be present in this report.**

☀	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

# QC Association Summary

Client: Olin Corporation  
Project/Site: Olin Chemical

TestAmerica Job ID: 360-40979-1

## Metals

### Prep Batch: 91679

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
360-40979-1	OC-SW-ISCO1	Total/NA	Water	3010A	5
360-40979-2	OC-SW-ISCO2	Total/NA	Water	3010A	5
360-40979-6	OC-SW-PZ-18RSW	Total/NA	Water	3010A	5
360-40979-6 MS	OC-SW-PZ-18RSW	Total/NA	Water	3010A	6
360-40979-6 MSD	OC-SW-PZ-18RSW	Total/NA	Water	3010A	7
LCS 360-91679/2-A	Lab Control Sample	Total/NA	Water	3010A	7
LCSD 360-91679/3-A	Lab Control Sample Dup	Total/NA	Water	3010A	8
MB 360-91679/1-A	Method Blank	Total/NA	Water	3010A	8

### Analysis Batch: 91904

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
360-40979-1	OC-SW-ISCO1	Total/NA	Water	6010C	91679
360-40979-2	OC-SW-ISCO2	Total/NA	Water	6010C	91679
360-40979-6	OC-SW-PZ-18RSW	Total/NA	Water	6010C	91679
360-40979-6 MS	OC-SW-PZ-18RSW	Total/NA	Water	6010C	91679
360-40979-6 MSD	OC-SW-PZ-18RSW	Total/NA	Water	6010C	91679
LCS 360-91679/2-A	Lab Control Sample	Total/NA	Water	6010C	91679
LCSD 360-91679/3-A	Lab Control Sample Dup	Total/NA	Water	6010C	91679
MB 360-91679/1-A	Method Blank	Total/NA	Water	6010C	91679

### Prep Batch: 91957

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
360-40979-3	OC-SW-ISCO3	Total/NA	Water	3010A	10
360-40979-4	OC-SW-PZ-16RRSW	Total/NA	Water	3010A	11
360-40979-5	OC-SW-PZ-17RRSW	Total/NA	Water	3010A	11
360-40979-7	OC-SW-SD-17	Total/NA	Water	3010A	12
360-40979-8	OC-SW-PZ-18RSW DUP	Total/NA	Water	3010A	12
LCS 360-91957/2-A	Lab Control Sample	Total/NA	Water	3010A	13
LCSD 360-91957/3-A	Lab Control Sample Dup	Total/NA	Water	3010A	13
MB 360-91957/1-A	Method Blank	Total/NA	Water	3010A	14

### Analysis Batch: 92012

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
360-40979-3	OC-SW-ISCO3	Total/NA	Water	6010C	91957
360-40979-4	OC-SW-PZ-16RRSW	Total/NA	Water	6010C	91957
360-40979-5	OC-SW-PZ-17RRSW	Total/NA	Water	6010C	91957
360-40979-7	OC-SW-SD-17	Total/NA	Water	6010C	91957
360-40979-8	OC-SW-PZ-18RSW DUP	Total/NA	Water	6010C	91957
LCS 360-91957/2-A	Lab Control Sample	Total/NA	Water	6010C	91957
LCSD 360-91957/3-A	Lab Control Sample Dup	Total/NA	Water	6010C	91957
MB 360-91957/1-A	Method Blank	Total/NA	Water	6010C	91957

### Analysis Batch: 92063

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
360-40979-1	OC-SW-ISCO1	Dissolved	Water	6010C	1
360-40979-2	OC-SW-ISCO2	Dissolved	Water	6010C	2
360-40979-3	OC-SW-ISCO3	Dissolved	Water	6010C	3
360-40979-4	OC-SW-PZ-16RRSW	Dissolved	Water	6010C	4
360-40979-5	OC-SW-PZ-17RRSW	Dissolved	Water	6010C	5
360-40979-6	OC-SW-PZ-18RSW	Dissolved	Water	6010C	6
360-40979-6 MS	OC-SW-PZ-18RSW	Dissolved	Water	6010C	7
360-40979-6 MSD	OC-SW-PZ-18RSW	Dissolved	Water	6010C	8

# QC Association Summary

Client: Olin Corporation  
Project/Site: Olin Chemical

TestAmerica Job ID: 360-40979-1

## Metals (Continued)

### Analysis Batch: 92063 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
360-40979-7	OC-SW-SD-17	Dissolved	Water	6010C	
360-40979-8	OC-SW-PZ-18RSW DUP	Dissolved	Water	6010C	
LCS 360-92063/17	Lab Control Sample	Total/NA	Water	6010C	
LCSD 360-92063/29	Lab Control Sample Dup	Total/NA	Water	6010C	
MB 360-92063/18	Method Blank	Total/NA	Water	6010C	

## General Chemistry

### Prep Batch: 91750

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
360-40979-1	OC-SW-ISC01	Total/NA	Water	Distill/Ammonia	
360-40979-2	OC-SW-ISCO2	Total/NA	Water	Distill/Ammonia	
LCS 360-91750/2-A	Lab Control Sample	Total/NA	Water	Distill/Ammonia	
MB 360-91750/1-A	Method Blank	Total/NA	Water	Distill/Ammonia	

### Analysis Batch: 91751

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
360-40979-1	OC-SW-ISC01	Total/NA	Water	300.0	
360-40979-1	OC-SW-ISC01	Total/NA	Water	300.0	
360-40979-2	OC-SW-ISCO2	Total/NA	Water	300.0	
360-40979-2	OC-SW-ISCO2	Total/NA	Water	300.0	
360-40979-3	OC-SW-ISCO3	Total/NA	Water	300.0	
360-40979-3	OC-SW-ISCO3	Total/NA	Water	300.0	
360-40979-4	OC-SW-PZ-16RRSW	Total/NA	Water	300.0	
360-40979-4	OC-SW-PZ-16RRSW	Total/NA	Water	300.0	
360-40979-5	OC-SW-PZ-17RRSW	Total/NA	Water	300.0	
360-40979-5	OC-SW-PZ-17RRSW	Total/NA	Water	300.0	
360-40979-6	OC-SW-PZ-18RSW	Total/NA	Water	300.0	
360-40979-6	OC-SW-PZ-18RSW	Total/NA	Water	300.0	
360-40979-6 MS	OC-SW-PZ-18RSW	Total/NA	Water	300.0	
360-40979-6 MSD	OC-SW-PZ-18RSW	Total/NA	Water	300.0	
360-40979-7	OC-SW-SD-17	Total/NA	Water	300.0	
360-40979-7	OC-SW-SD-17	Total/NA	Water	300.0	
360-40979-8	OC-SW-PZ-18RSW DUP	Total/NA	Water	300.0	
360-40979-8	OC-SW-PZ-18RSW DUP	Total/NA	Water	300.0	
LCS 360-91751/4	Lab Control Sample	Total/NA	Water	300.0	
MB 360-91751/3	Method Blank	Total/NA	Water	300.0	

### Analysis Batch: 91757

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
360-40979-1	OC-SW-ISC01	Total/NA	Water	SM 2510B	
360-40979-2	OC-SW-ISCO2	Total/NA	Water	SM 2510B	
360-40979-3	OC-SW-ISCO3	Total/NA	Water	SM 2510B	
360-40979-4	OC-SW-PZ-16RRSW	Total/NA	Water	SM 2510B	
360-40979-5	OC-SW-PZ-17RRSW	Total/NA	Water	SM 2510B	
360-40979-6	OC-SW-PZ-18RSW	Total/NA	Water	SM 2510B	
360-40979-6 DU	OC-SW-PZ-18RSW	Total/NA	Water	SM 2510B	
360-40979-7	OC-SW-SD-17	Total/NA	Water	SM 2510B	
360-40979-8	OC-SW-PZ-18RSW DUP	Total/NA	Water	SM 2510B	
LCS 360-91757/31	Lab Control Sample	Total/NA	Water	SM 2510B	
MB 360-91757/30	Method Blank	Total/NA	Water	SM 2510B	

# QC Association Summary

Client: Olin Corporation  
Project/Site: Olin Chemical

TestAmerica Job ID: 360-40979-1

## General Chemistry (Continued)

### Analysis Batch: 91760

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
360-40979-1	OC-SW-ISCO1	Total/NA	Water	300.0	
360-40979-1	OC-SW-ISCO1	Total/NA	Water	300.0	
360-40979-2	OC-SW-ISCO2	Total/NA	Water	300.0	
360-40979-3	OC-SW-ISCO3	Total/NA	Water	300.0	
360-40979-3	OC-SW-ISCO3	Total/NA	Water	300.0	
360-40979-4	OC-SW-PZ-16RRSW	Total/NA	Water	300.0	
360-40979-5	OC-SW-PZ-17RRSW	Total/NA	Water	300.0	
360-40979-6	OC-SW-PZ-18RSW	Total/NA	Water	300.0	
360-40979-6	OC-SW-PZ-18RSW	Total/NA	Water	300.0	
360-40979-6 MS	OC-SW-PZ-18RSW	Total/NA	Water	300.0	
360-40979-6 MSD	OC-SW-PZ-18RSW	Total/NA	Water	300.0	
360-40979-7	OC-SW-SD-17	Total/NA	Water	300.0	
360-40979-8	OC-SW-PZ-18RSW DUP	Total/NA	Water	300.0	
360-40979-8	OC-SW-PZ-18RSW DUP	Total/NA	Water	300.0	
LCS 360-91760/4	Lab Control Sample	Total/NA	Water	300.0	
MB 360-91760/3	Method Blank	Total/NA	Water	300.0	

### Analysis Batch: 91780

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
360-40979-1	OC-SW-ISCO1	Total/NA	Water	L107-06-1B	91750
360-40979-2	OC-SW-ISCO2	Total/NA	Water	L107-06-1B	91750
LCS 360-91750/2-A	Lab Control Sample	Total/NA	Water	L107-06-1B	91750
MB 360-91750/1-A	Method Blank	Total/NA	Water	L107-06-1B	91750

### Prep Batch: 91861

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
360-40979-3	OC-SW-ISCO3	Total/NA	Water	Distill/Ammonia	
360-40979-4	OC-SW-PZ-16RRSW	Total/NA	Water	Distill/Ammonia	
360-40979-5	OC-SW-PZ-17RRSW	Total/NA	Water	Distill/Ammonia	
360-40979-6	OC-SW-PZ-18RSW	Total/NA	Water	Distill/Ammonia	
360-40979-6 MS	OC-SW-PZ-18RSW	Total/NA	Water	Distill/Ammonia	
360-40979-6 MSD	OC-SW-PZ-18RSW	Total/NA	Water	Distill/Ammonia	
360-40979-7	OC-SW-SD-17	Total/NA	Water	Distill/Ammonia	
360-40979-8	OC-SW-PZ-18RSW DUP	Total/NA	Water	Distill/Ammonia	
LCS 360-91861/2-A	Lab Control Sample	Total/NA	Water	Distill/Ammonia	
MB 360-91861/1-A	Method Blank	Total/NA	Water	Distill/Ammonia	

### Analysis Batch: 91925

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
360-40979-3	OC-SW-ISCO3	Total/NA	Water	L107-06-1B	91861
360-40979-4	OC-SW-PZ-16RRSW	Total/NA	Water	L107-06-1B	91861
360-40979-5	OC-SW-PZ-17RRSW	Total/NA	Water	L107-06-1B	91861
360-40979-6	OC-SW-PZ-18RSW	Total/NA	Water	L107-06-1B	91861
360-40979-6 MS	OC-SW-PZ-18RSW	Total/NA	Water	L107-06-1B	91861
360-40979-6 MSD	OC-SW-PZ-18RSW	Total/NA	Water	L107-06-1B	91861
360-40979-7	OC-SW-SD-17	Total/NA	Water	L107-06-1B	91861
360-40979-8	OC-SW-PZ-18RSW DUP	Total/NA	Water	L107-06-1B	91861
LCS 360-91861/2-A	Lab Control Sample	Total/NA	Water	L107-06-1B	91861
MB 360-91861/1-A	Method Blank	Total/NA	Water	L107-06-1B	91861



# QC Sample Results

Client: Olin Corporation  
Project/Site: Olin Chemical

TestAmerica Job ID: 360-40979-1

## Method: 6010C - Metals (ICP) (Continued)

**Lab Sample ID: LCS 360-91957/2-A**

**Matrix: Water**

**Analysis Batch: 92012**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 91957**

Analyte	Spike	LCS	LCS	%Rec.		
	Added	Result	Qualifier	Unit	D	Limits
Aluminum	5000	4920		ug/L	98	80 - 120
Chromium	1000	1000		ug/L	100	80 - 120
Sodium	20000	19700		ug/L	99	80 - 120

**Lab Sample ID: LCSD 360-91957/3-A**

**Matrix: Water**

**Analysis Batch: 92012**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

**Prep Batch: 91957**

Analyte	Spike	LCSD	LCSD	%Rec.			RPD
	Added	Result	Qualifier	Unit	D	Limits	RPD
Aluminum	5000	5000		ug/L	100	80 - 120	2
Chromium	1000	1010		ug/L	101	80 - 120	0
Sodium	20000	19700		ug/L	99	80 - 120	0

**Lab Sample ID: MB 360-92063/18**

**Matrix: Water**

**Analysis Batch: 92063**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB	MB	Prepared			Analysed	Dil Fac
	Result	Qualifier	RL	MDL	Unit		
Aluminum	ND		100	13	ug/L	06/18/12 13:43	1
Chromium	ND		5.0	0.53	ug/L	06/18/12 13:43	1
Sodium	ND		2000	700	ug/L	06/18/12 13:43	1

**Lab Sample ID: LCS 360-92063/17**

**Matrix: Water**

**Analysis Batch: 92063**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike	LCS	LCS	%Rec.		
	Added	Result	Qualifier	Unit	D	Limits
Aluminum	5000	4950		ug/L	99	80 - 120
Chromium	1000	1020		ug/L	102	80 - 120
Sodium	20000	19500		ug/L	97	80 - 120

**Lab Sample ID: LCSD 360-92063/29**

**Matrix: Water**

**Analysis Batch: 92063**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

Analyte	Spike	LCSD	LCSD	%Rec.			RPD
	Added	Result	Qualifier	Unit	D	Limits	RPD
Aluminum	5000	5000		ug/L	100	80 - 120	1
Chromium	1000	1040		ug/L	104	80 - 120	1
Sodium	20000	19800		ug/L	99	80 - 120	2

**Lab Sample ID: 360-40979-6 MS**

**Matrix: Water**

**Analysis Batch: 92063**

**Client Sample ID: OC-SW-PZ-18RSW**

**Prep Type: Dissolved**

Analyte	Sample	Sample	Spike	MS	MS	%Rec.		
	Result	Qualifier	Added	Result	Qualifier	Unit	D	Limits
Aluminum	160		5000	5280		ug/L	102	75 - 125
Chromium	17		1000	1070		ug/L	105	75 - 125
Sodium	71000		20000	91500		ug/L	103	75 - 125



# QC Sample Results

Client: Olin Corporation  
Project/Site: Olin Chemical

TestAmerica Job ID: 360-40979-1

## Method: 300.0 - Chloride & Sulfate (Continued)

**Lab Sample ID: LCS 360-91760/4**

**Matrix: Water**

**Analysis Batch: 91760**

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.
	Added	Result	Qualifier				
Sulfate	80.0	83.8		mg/L		105	85 - 115
Chloride	40.0	41.5		mg/L		104	85 - 115

**Lab Sample ID: 360-40979-6 MS**

**Matrix: Water**

**Analysis Batch: 91760**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.
	Result	Qualifier	Added	Result	Qualifier				
Sulfate	92		200	330		mg/L		119	75 - 125
Chloride	110		100	231		mg/L		125	75 - 125

**Lab Sample ID: 360-40979-6 MSD**

**Matrix: Water**

**Analysis Batch: 91760**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier							
Sulfate	92		200	308		mg/L		108	75 - 125	7	20	
Chloride	110		100	216		mg/L		110	75 - 125	7	20	

## Method: L107-06-1B - Nitrogen Ammonia

**Lab Sample ID: MB 360-91750/1-A**

**Matrix: Water**

**Analysis Batch: 91780**

Analyte	MB	MB	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Ammonia	ND		0.10	0.10	mg/L		06/11/12 10:06	06/11/12 12:33	1

**Lab Sample ID: LCS 360-91750/2-A**

**Matrix: Water**

**Analysis Batch: 91780**

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.
	Added	Result	Qualifier				
Ammonia	10.0	9.88		mg/L		99	90 - 110

**Lab Sample ID: MB 360-91861/1-A**

**Matrix: Water**

**Analysis Batch: 91925**

Analyte	MB	MB	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Ammonia	ND		0.10	0.10	mg/L		06/13/12 13:49	06/14/12 13:11	1

**Lab Sample ID: LCS 360-91861/2-A**

**Matrix: Water**

**Analysis Batch: 91925**

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.
	Added	Result	Qualifier				
Ammonia	10.0	10.2		mg/L		102	90 - 110

# QC Sample Results

Client: Olin Corporation  
Project/Site: Olin Chemical

TestAmerica Job ID: 360-40979-1

## Method: L107-06-1B - Nitrogen Ammonia (Continued)

**Lab Sample ID:** 360-40979-6 MS

**Matrix:** Water

**Analysis Batch:** 91925

**Client Sample ID:** OC-SW-PZ-18RSW

**Prep Type:** Total/NA

**Prep Batch:** 91861

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.
	Result	Qualifier	Added	Result	Qualifier				Limits
Ammonia	28		10.0	38.2		mg/L		103	90 - 110

**Lab Sample ID:** 360-40979-6 MSD

**Matrix:** Water

**Analysis Batch:** 91925

**Client Sample ID:** OC-SW-PZ-18RSW

**Prep Type:** Total/NA

**Prep Batch:** 91861

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.
	Result	Qualifier	Added	Result	Qualifier				RPD
Ammonia	28		10.0	42.1	F	mg/L		143	90 - 110

## Method: SM 2510B - Conductivity, Specific Conductance

**Lab Sample ID:** MB 360-91757/30

**Matrix:** Water

**Analysis Batch:** 91757

**Client Sample ID:** Method Blank

**Prep Type:** Total/NA

Analyte	MB	MB	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Specific Conductance	ND		1.0	1.0	umhos/cm			06/11/12 10:00	1

**Lab Sample ID:** LCS 360-91757/31

**Matrix:** Water

**Analysis Batch:** 91757

**Client Sample ID:** Lab Control Sample

**Prep Type:** Total/NA

Analyte	Spike	LCS	LCS	Unit	D	%Rec	Limits
	Added	Result	Qualifier				
Specific Conductance	1410	1400		umhos/cm		99	85 - 115

**Lab Sample ID:** 360-40979-6 DU

**Matrix:** Water

**Analysis Batch:** 91757

**Client Sample ID:** OC-SW-PZ-18RSW

**Prep Type:** Total/NA

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier						
Specific Conductance	640		641		umhos/cm		0.2	20

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## DILUTION LOGS

1 2 3 4 5 6 7 8 9 10 11 12 13 14

Date:

6/8/12

TestAmerica Westfield  
Analytical Dilution Preparation Log

Date:

6/21/2012

Serial Dilution

Comments

Analyst  
Initials

Date

Method

LIMS Sample ID

Rptd Dil.

Sample  
Aliquot 1

Final  
Volume 1

Units

Sample  
Aliquot 2

Final  
Volume 2

Units

~~AMS 6/8/12~~

~~200.0~~

~~40970446~~

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~~MSD~~

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~~300.0~~

~~40970446~~

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TestAmerica Westfield  
Analytical Dilution Preparation Log

Date: 6-11-12

Analyst Initials	Date	Method	LIMS Sample ID	Rat'd Dill.	Sample Aliquot 1	Final Volume 1	Units	Serial Dilution		
								Sample Aliquot 2	Final Volume 2	Units
RUE	6-11-12	NH3	40846C2A	20X	500 μL	10	μL			
			C3A	10X	( ml	10	ml			
			40974BSA	10X	( ml	10	ml			
			B7A	10X	( ml	10	ml			
			40979DIA	5X	2	( ml	10			
			D2A	5X	2	( ml	10			

entries completed by day [ new page each day]

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TestAmerica Westfield  
Analytical Dilution Preparation Log

Date: 6-14-12

Analyst Initials	Date	Method	LIMS Sample ID	Rpt'd Dil.	Sample Aliquot 1	Final Volume 1	Units	Serial Dilution			Comments
								Sample Aliquot 2	Final Volume 2	Units	
RWE 6-14-12	6-14-12	NH3	40979 D6A	5X	2	uL	10	ML	ML		
			06B NS	5X	2	(0)					
			06cNSD	5X	2	(0)					
			D6A	10X	1	(0)					
			OSA	10X	1	(0)					
			D7A	10X	1	(0)					
			OSA	10X	1	(0)					
			HOGAICIA	10X	1	(0)					
			CRA	5X	2	(0)					

entries completed by day [ new page each day]

## Lab Chronicle

Client: Olin Corporation  
Project/Site: Olin Chemical

TestAmerica Job ID: 360-40979-1

**Client Sample ID: OC-SW-ISC01**

**Lab Sample ID: 360-40979-1**

**Matrix: Water**

**Date Collected: 06/07/12 10:30**

**Date Received: 06/07/12 16:40**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			91679	06/08/12 09:10	BRB	TAL WFD
Total/NA	Analysis	6010C		1	91904	06/13/12 15:53	TJS	TAL WFD
Dissolved	Analysis	6010C		1	92063	06/18/12 15:19	TJS	TAL WFD
Total/NA	Analysis	300.0		10	91751	06/08/12 14:09	AMS	TAL WFD
Total/NA	Analysis	300.0		1	91751	06/08/12 13:52	AMS	TAL WFD
Total/NA	Analysis	SM 2510B		1	91757	06/11/12 10:23	EE	TAL WFD
Total/NA	Analysis	300.0		10	91760	06/08/12 14:09	AMS	TAL WFD
Total/NA	Analysis	300.0		1	91760	06/08/12 13:52	AMS	TAL WFD
Total/NA	Prep	Distill/Ammonia			91750	06/11/12 10:06	RWE	TAL WFD
Total/NA	Analysis	L107-06-1B		5	91780	06/11/12 12:58	RWE	TAL WFD

**Client Sample ID: OC-SW-ISCO2**

**Lab Sample ID: 360-40979-2**

**Matrix: Water**

**Date Collected: 06/07/12 08:45**

**Date Received: 06/07/12 16:40**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			91679	06/08/12 09:10	BRB	TAL WFD
Total/NA	Analysis	6010C		1	91904	06/13/12 16:02	TJS	TAL WFD
Dissolved	Analysis	6010C		1	92063	06/18/12 15:22	TJS	TAL WFD
Total/NA	Analysis	300.0		1	91751	06/08/12 14:26	AMS	TAL WFD
Total/NA	Analysis	300.0		10	91751	06/08/12 14:43	AMS	TAL WFD
Total/NA	Analysis	SM 2510B		1	91757	06/11/12 10:25	EE	TAL WFD
Total/NA	Analysis	300.0		10	91760	06/08/12 14:43	AMS	TAL WFD
Total/NA	Prep	Distill/Ammonia			91750	06/11/12 10:06	RWE	TAL WFD
Total/NA	Analysis	L107-06-1B		5	91780	06/11/12 12:59	RWE	TAL WFD

**Client Sample ID: OC-SW-ISCO3**

**Lab Sample ID: 360-40979-3**

**Matrix: Water**

**Date Collected: 06/07/12 08:30**

**Date Received: 06/07/12 16:40**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			91957	06/15/12 10:16	BH	TAL WFD
Total/NA	Analysis	6010C		1	92012	06/15/12 19:36	TJS	TAL WFD
Dissolved	Analysis	6010C		1	92063	06/18/12 15:31	TJS	TAL WFD
Total/NA	Analysis	300.0		1	91751	06/08/12 15:00	AMS	TAL WFD
Total/NA	Analysis	300.0		10	91751	06/08/12 15:17	AMS	TAL WFD
Total/NA	Analysis	SM 2510B		1	91757	06/11/12 10:26	EE	TAL WFD
Total/NA	Analysis	300.0		1	91760	06/08/12 15:00	AMS	TAL WFD
Total/NA	Analysis	300.0		10	91760	06/08/12 15:17	AMS	TAL WFD
Total/NA	Prep	Distill/Ammonia			91861	06/13/12 13:49	RWE	TAL WFD
Total/NA	Analysis	L107-06-1B		1	91925	06/14/12 13:16	RWE	TAL WFD

## Lab Chronicle

Client: Olin Corporation  
Project/Site: Olin Chemical

TestAmerica Job ID: 360-40979-1

**Client Sample ID: OC-SW-PZ-16RRSW**

**Lab Sample ID: 360-40979-4**

**Matrix: Water**

**Date Collected: 06/07/12 09:05**

**Date Received: 06/07/12 16:40**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			91957	06/15/12 10:16	BH	TAL WFD
Total/NA	Analysis	6010C		1	92012	06/15/12 19:39	TJS	TAL WFD
Dissolved	Analysis	6010C		1	92063	06/18/12 15:33	TJS	TAL WFD
Total/NA	Analysis	300.0		1	91751	06/08/12 16:09	AMS	TAL WFD
Total/NA	Analysis	300.0		10	91751	06/08/12 16:26	AMS	TAL WFD
Total/NA	Analysis	SM 2510B		1	91757	06/11/12 10:28	EE	TAL WFD
Total/NA	Analysis	300.0		10	91760	06/08/12 16:26	AMS	TAL WFD
Total/NA	Prep	Distill/Ammonia			91861	06/13/12 13:49	RWE	TAL WFD
Total/NA	Analysis	L107-06-1B		10	91925	06/14/12 13:34	RWE	TAL WFD

**Client Sample ID: OC-SW-PZ-17RRSW**

**Lab Sample ID: 360-40979-5**

**Matrix: Water**

**Date Collected: 06/07/12 09:20**

**Date Received: 06/07/12 16:40**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			91957	06/15/12 10:16	BH	TAL WFD
Total/NA	Analysis	6010C		1	92012	06/15/12 19:42	TJS	TAL WFD
Dissolved	Analysis	6010C		1	92063	06/18/12 15:36	TJS	TAL WFD
Total/NA	Analysis	300.0		1	91751	06/08/12 16:43	AMS	TAL WFD
Total/NA	Analysis	300.0		10	91751	06/08/12 17:00	AMS	TAL WFD
Total/NA	Analysis	SM 2510B		1	91757	06/11/12 10:29	EE	TAL WFD
Total/NA	Analysis	300.0		10	91760	06/08/12 17:00	AMS	TAL WFD
Total/NA	Prep	Distill/Ammonia			91861	06/13/12 13:49	RWE	TAL WFD
Total/NA	Analysis	L107-06-1B		10	91925	06/14/12 13:35	RWE	TAL WFD

**Client Sample ID: OC-SW-PZ-18RSW**

**Lab Sample ID: 360-40979-6**

**Matrix: Water**

**Date Collected: 06/07/12 09:55**

**Date Received: 06/07/12 16:40**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			91679	06/08/12 09:10	BRB	TAL WFD
Total/NA	Analysis	6010C		1	91904	06/13/12 14:40	TJS	TAL WFD
Dissolved	Analysis	6010C		1	92063	06/18/12 15:07	TJS	TAL WFD
Total/NA	Analysis	300.0		1	91751	06/08/12 12:43	AMS	TAL WFD
Total/NA	Analysis	300.0		10	91751	06/08/12 13:01	AMS	TAL WFD
Total/NA	Analysis	SM 2510B		1	91757	06/11/12 10:31	EE	TAL WFD
Total/NA	Analysis	300.0		1	91760	06/08/12 12:43	AMS	TAL WFD
Total/NA	Analysis	300.0		10	91760	06/08/12 13:01	AMS	TAL WFD
Total/NA	Prep	Distill/Ammonia			91861	06/13/12 13:49	RWE	TAL WFD
Total/NA	Analysis	L107-06-1B		5	91925	06/14/12 13:32	RWE	TAL WFD

## Lab Chronicle

Client: Olin Corporation  
Project/Site: Olin Chemical

TestAmerica Job ID: 360-40979-1

**Client Sample ID: OC-SW-SD-17**

**Lab Sample ID: 360-40979-7**

**Matrix: Water**

**Date Collected: 06/07/12 09:35**

**Date Received: 06/07/12 16:40**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			91957	06/15/12 10:16	BH	TAL WFD
Total/NA	Analysis	6010C		1	92012	06/15/12 19:45	TJS	TAL WFD
Dissolved	Analysis	6010C		1	92063	06/18/12 15:39	TJS	TAL WFD
Total/NA	Analysis	300.0		1	91751	06/08/12 17:17	AMS	TAL WFD
Total/NA	Analysis	300.0		10	91751	06/08/12 17:34	AMS	TAL WFD
Total/NA	Analysis	SM 2510B		1	91757	06/11/12 10:34	EE	TAL WFD
Total/NA	Analysis	300.0		10	91760	06/08/12 17:34	AMS	TAL WFD
Total/NA	Prep	Distill/Ammonia			91861	06/13/12 13:49	RWE	TAL WFD
Total/NA	Analysis	L107-06-1B		10	91925	06/14/12 13:36	RWE	TAL WFD

**Client Sample ID: OC-SW-PZ-18RSW DUP**

**Lab Sample ID: 360-40979-8**

**Matrix: Water**

**Date Collected: 06/07/12 09:55**

**Date Received: 06/07/12 16:40**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			91957	06/15/12 10:16	BH	TAL WFD
Total/NA	Analysis	6010C		1	92012	06/15/12 19:48	TJS	TAL WFD
Dissolved	Analysis	6010C		1	92063	06/18/12 15:42	TJS	TAL WFD
Total/NA	Analysis	300.0		1	91751	06/08/12 17:51	AMS	TAL WFD
Total/NA	Analysis	300.0		10	91751	06/08/12 18:08	AMS	TAL WFD
Total/NA	Analysis	SM 2510B		1	91757	06/11/12 10:35	EE	TAL WFD
Total/NA	Analysis	300.0		1	91760	06/08/12 17:51	AMS	TAL WFD
Total/NA	Analysis	300.0		10	91760	06/08/12 18:08	AMS	TAL WFD
Total/NA	Prep	Distill/Ammonia			91861	06/13/12 13:49	RWE	TAL WFD
Total/NA	Analysis	L107-06-1B		10	91925	06/14/12 13:37	RWE	TAL WFD

**Laboratory References:**

TAL WFD = TestAmerica Westfield, Westfield Executive Park, 53 Southampton Road, Westfield, MA 01085, TEL (413)572-4000

## Certification Summary

Client: Olin Corporation  
Project/Site: Olin Chemical

TestAmerica Job ID: 360-40979-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Westfield	Connecticut	State Program	1	PH-0494
TestAmerica Westfield	Maine	State Program	1	MA00014
TestAmerica Westfield	Massachusetts	State Program	1	M-MA014
TestAmerica Westfield	New Hampshire	NELAC	1	2539
TestAmerica Westfield	Rhode Island	State Program	1	LAO00057
TestAmerica Westfield	Vermont	State Program	1	VT-10843

Accreditation may not be offered or required for all methods and analytes reported in this package . Please contact your project manager for the laboratory's current list of certified methods and analytes.

# State Accreditation Matrix

Method Name	Description	Primary Accreditation	
		New Hampshire (NELAC)	Mass
180.1	Turbidity, Nephelometric	P	P
245.1	Mercury (CVAA)	NP/P	NP
300	Anions, Ion Chromatography	NP/P	NP/P
410.4	COD	NP	NP
524.2	Volatile Org Comp (GC/MS)(list upon request)	P	P
524.2	Trihalomethane compounds	P	P
608	Organochlorine Pest/PCBs (list upon request)	NP	NP
624	Volatile Org Comp (GC/MS)(list upon request)	NP	NP
625	Semivolatile Org Comp (GC/MS)(list upon request)	NP	NP
1010	Ignitability, Pensky-Martens Closed-Cup Method	SW	
1103.1	E.coli	ambient/source	
3546	Microwave Extraction	SW	
5035	Closed System Purge and Trap	SW	
6020	Metals (ICP/MS) (list upon request)	NP	
10-107-06-2	Nitrogen, Total Kjeldahl	NP	NP
200.7 Rev 4.4	Metals (ICP)(list upon request)	NP/P	NP/P
200.8 Rev 5.4	Metals (ICP/MS) (list upon request)	NP/P	NP/P
3005A	Preparation, Total Recoverable or Dissolved Metals	NP/P	
3010A	Preparation, Total Metals	NP/P	
3020A	Preparation, Total Metals	NP/P	
3050B	Preparation, Metals	SW	
3510C	Liquid-Liquid Extraction (Separatory Funnel)	NP	
5030B	Purge and Trap	NP	
6010C	Metals (ICP)(list upon request)	NP/SW	
7196A	Chromium, Hexavalent	NP/SW	
7470A	Mercury (CVAA)	NP	
7471A	Mercury (CVAA)	SW	
8081B	Organochlorine Pesticides (GC)(list upon request)	NP/SW	
8082A	PCBs by Gas Chromatography(list upon request)	NP/SW	
8260C	Volatile Org Comp. (GC/MS)(list upon request)	NP/SW	
8270D	Semivolatile Comp.(GC/MS)(list upon request)	NP/SW	
9012A	Cyanide, Total and/or Amenable	NP/SW	
9030B	Sulfide, Distillation (Acid Soluble and Insoluble)	NP	
9045C	pH	SW	
CT ETPH	Conn - Ext. Total petroleum Hydrocarbons (GC)	NP/SW	
Enterolert	Enterococcus	ambient/source	
L107041C	Nitrogen, Nitrate	NP	
L107-06-1B	Nitrogen Ammonia	NP	NP
L204001A CN	Cyanide, Total	P	NP/P
L210-001A	Phenolics, Total Recoverable	NP	NP
MA-EPH	Mass - Extractable Petroleum Hydrocarbons (GC)	NP/SW	
MAVPH	Mass - Volatile Petroleum Hydrocarbons (GC)	NP/SW	
SM 2320B	Alkalinity	NP/P	NP/P
SM 2340B	Total Hardness (as CaCO <sub>3</sub> ) by calculation	NP/P	NP
SM 2510B	Conductivity, Specific Conductance	NP/P	NP/P
SM 2540C	Solids, Total Dissolved (TDS)	NP/P	NP/P
SM 2540D	Solids, Total Suspended (TSS)	NP	NP
SM 3500 CR D	Chromium, Hexavalent	NP	
SM 4500 CI F	Chlorine, Residual	NP	
SM 4500 H+ B	pH	NP/P	NP/P
SM 4500 NO <sub>2</sub> B	Nitrogen, Nitrite	NP	P
SM 4500 P E	Phosphorus, Orthophosphate	NP/P	NP
SM 4500 P E	Phosphorus, Total	NP	NP
SM 4500 S2 D	Sulfide, Total	NP	
SM 5210B	BOD, 5-Day	NP	NP
SM 5310B	Organic Carbon, Total (TOC)	NP/P	NP
SM 9215E	Heterotrophic Plate Count (SimPlate)	P	
SM 9222D	Coliforms, Fecal (Membrane Filter)	NP	
SM 9223	Coliforms, Total, and E.Coli (Colilert-P/A)	P	
SM 9223	Coliforms, Total, and E.Coli (Enumeration)	P	

Not all organic compounds are accredited under YNI

For methods with multiple compounds all compounds may not meet TNI criteria, a listing should be obtained from the laboratory

The lab carries additional accreditations with several states. This is the laboratories typical listing but is subject to change based on the laboratories current certification standing.

## Login Sample Receipt Checklist

Client: Olin Corporation

Job Number: 360-40979-1

**Login Number: 40979**

**List Source: TestAmerica Westfield**

**List Number: 1**

**Creator: Kolb, Chris M**

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

1    2    3    4    5    6    7    8    9    10    11    12    13    14

**TestAmerica Westfield**  
Westfield Executive Park 53 Southampton Road  
Westfield, MA 01085  
Phone (413) 572-4000 Fax (413) 572-3707

**Boston Service Center**  
240 Bear Hill Rd. Suite 104  
Waltham, MA 02451  
Phone (781) 466-6900 Fax (781) 466-6901

## Chain of Custody Record

THE LEADER IN ENVIRONMENTAL TESTING  
**TestAmerica**

6/21/2012

<b>Client Information</b>		Carter Tracking No(s):	
Client Contact: <b>James Coshell</b>		Job #: <b>360-40979</b>	
Address: <b>51 Barnes St</b>		Lab P.M.: <b>Becky Mason</b>	
City: <b>Wellesley, MA 02481</b>		Phone: <b>978-658-6121</b>	
State/Zip: <b>MA 01881</b>		E-Mail:	
Phone: <b>403-336-4012</b>		Quote #:	
Email:		PO #:	
Project Name/number: <b>W0#:</b>		SSOW#:	
<b>Analysis Requested</b>			
Sample Identification		Matrix (WATER, Soil, Characteristic BOTTLE, A-Air)	
Sample Date		Sample Time (C=Comp, G=Grab)	
Preservation Code:		Sampler's Initials	
<input checked="" type="checkbox"/> Non-Hazard		<input checked="" type="checkbox"/> Flammable	
<input checked="" type="checkbox"/> Relinquished by:		<input checked="" type="checkbox"/> Skin Irritant	
<input checked="" type="checkbox"/> Custody Seats Intact:		<input checked="" type="checkbox"/> Poison B	
<input checked="" type="checkbox"/> Deliverable Requested: I, II, III, IV Other (specify): <b>J</b>		<input checked="" type="checkbox"/> Unknown	
<input checked="" type="checkbox"/> Radiological		<input checked="" type="checkbox"/> Return To Client	
<input checked="" type="checkbox"/> Disposal By Lab		<input checked="" type="checkbox"/> Disposal	
Specified Instructions/QC Requirements:		Archive For _____ Months	
Received by: <b>James Coshell</b>		DateTime: <b>6/7/12 12:46</b>	
Date/Time: <b>6/7/12 16:40</b>		Company: <b>TestAmerica</b>	
Received by: <b>James Coshell</b>		DateTime: <b>6/7/12 16:40</b>	
Date/Time: <b>6/7/12 16:40</b>		Company: <b>TestAmerica</b>	
Cooler Temperature(s) °C and Other Remarks: <b>4.19, 3.7 TCI</b>			
Custody Seal Intact: <b>△ Yes □ No</b>			
Custody Seal No.: <b></b>			